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PAUL GARDON  
AVAYA, INC.  
101 CRAWFORDS CORNER ROAD  
HOLMDEL, NJ 07733-4504

EXAMINER

MILORD, MARCEAU

ART UNIT

PAPER NUMBER

2682

DATE MAILED: 10/24/2003

5

Please find below and/or attached an Office communication concerning this application or proceeding.

TP

## Office Action Summary

Application No.

09/488,568

Applicant(s)

CHIA ET AL.

Examiner

Marceau Milord

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 January 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-47 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-47 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 January 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_. 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1- 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bilgic et al (US Patent No 6580906 B2) in view of Emery et al (US Patent No 6011975) and Gillespie (US Patent No 6014377).

Regarding claim 1, Bilgic et al discloses a method for handling call requests (fig. 1), comprising: receiving (105 of fig. 1) a request to complete a call originating from a wireless communications device (106 of fig. 1) to a central office (col. 2, lines 14-58; col. 4, lines 30-58); determining proper protocol for processing said request (col. 5, lines 27-59; col. 6, lines 13-40; col. 6, line 60- col. 7, line 9; col. 7, lines 47-62; col. 12, lines 7-56).

However, Bilgic et al does not specifically disclose the steps of instructing a private branch exchange provided between a wireless communication device and a central office to execute a proper protocol via computer telephony integration, thereby enabling completion of a call.

On the other hand, Emery et al, from the same field of endeavor, discloses a personal communication service system that can integrate a customer's existing wireline-based Centrex or

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PBX services with a wireless version of those services. PCS will allow four digit dialing of the personal Centrex or PBX number, and it will recognize when the personal user is located within a unique wireless environment based upon registration information sent to it by the wireless Centrex/PBX provider for delivery of calls (col. 8, lines 19-62; col. 10, lines 22-67; col. 11, lines 48- col. 12, line 18). Furthermore, the messages transmitted between the SSP's and the ISCP's are all formatted in accord with the transaction capabilities application protocol. The transaction capabilities protocol provides standardized formats for various query and response messages. Each query and response includes data fields for a variety of different pieces of information relating a call. The transaction capabilities protocol specifies a number of additional message formats, and formats for "invoke" responses for instructing the SSP to play an announcement or to play an announcement and collects digits (col. 13, lines 31-67; col. 14, lines 10-64; col. 16, lines 2-28; col. 16, line 60- col. 17, line 18).

Gillespie also discloses a method for routing a call incoming to a Private Branch Exchange network telephone number from outside of the PBX network based on a PBX subscriber's location including routing the call to a wireline switch, which detects predetermined PBX triggers. Furthermore, the call is routed from the wireline switch to a PBX switch in the PBX network for delivery to the single PBX number (col. 2, lines 11-65; col. 4, line 8- col. 5, line 50; col. 7, line 12- col. 8, line 57; col. 12, lines 1-42). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of Gillespie to the modified system of Emery and Bilgic in order to provide a system for providing an interface between the wireline and wireless communication networks utilizing private branch exchange lines.

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Regarding claim 2, Bilgic et al as modified discloses a method for handling call requests (fig. 1), wherein said act of determining comprises determining whether an appropriate signaling protocol is available for enabling completion of said call (col. 7, lines 47-62; col. 12, lines 20-56).

Regarding claim 3, Bilgic et al as modified discloses a method for handling call requests (fig. 1), wherein said act of determining whether an appropriate signaling protocol is available comprises determining whether a Q signal sequence is available for enabling said private branch exchange to communicate with at least one of a public switched telephone network and an audio switch associated with said wireless communications device (col. 5, line 29- col. 6, line 40; col. 13, lines 17-26; col. 12, lines 28-56; col. 16, lines 5-41).

Regarding claims 4-14, Bilgic et al as applied to claim 1 above differs from claims 4-14 in the present invention, in that Bilgic fails to disclose the steps of instructing a private branch exchange to communicate with a public switched telephone network; instructing said private branch exchange to communicate with said wireless communications device; instructing said private branch exchange to communicate with said wireless communications device via a two-way radio console and said audio switch.

However, Emery et al discloses a personal communication service system that can integrate a customer's existing wireline-based Centrex or PBX services with a wireless version of those services. PCS will allow four digit dialing of the personal Centrex or PBX number, and it will recognize when the personal user is located within a unique wireless environment based upon registration information sent to it by the wireless Centrex/PBX provider for delivery of calls (col. 8, lines 19-62; col. 10, lines 22-67; col. 11, lines 48- col. 12, line 18). Furthermore, the

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messages transmitted between the SSP's and the ISCP's are all formatted in accord with the transaction capabilities application protocol. The transaction capabilities protocol provides standardized formats for various query and response messages. Each query and response includes data fields for a variety of different pieces of information relating a call. The transaction capabilities protocol specifies a number of additional message formats, and formats for "invoke" responses for instructing the SSP to play an announcement or to play an announcement and collect digits (col. 13, lines 31-67; col. 14, lines 10-64; col. 16, lines 2-28; col. 16, line 60- col. 17, line 18).

Gillespie also discloses a method for routing a call incoming to a Private Branch Exchange network telephone number from outside of the PBX network based on a PBX subscriber's location including routing the call to a wireline switch, which detects predetermined PBX triggers. Furthermore, the call is routed from the wireline switch to a PBX switch in the PBX network for delivery to the single PBX number (col. 2, lines 11-65; col. 4, line 8- col. 5, line 50; col. 7, line 12- col. 8, line 57; col. 12, lines 1-42). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of Gillespie to the modified system of Emery and Bilgic in order to provide a system for providing an interface between the wireline and wireless communication networks utilizing private branch exchange lines.

Regarding claim 15, Bilgic et al discloses a method for handling call requests (fig. 1), comprising: receiving (105 of fig. 1) a request to complete a call from a central office to a wireless communications device (106 of fig. 1; col. 2, lines 14-58; col. 4, lines 30-58);

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determining proper protocol for processing said request (col. 5, lines 27-59; col. 6, lines 13-40; col. 6, line 60- col. 7, line 9; col. 7, lines 47-62; col. 12, lines 7-56).

However, Bilgic et al does not specifically disclose the steps of instructing a private branch exchange provided between a wireless communication device and a central office to execute a proper protocol via computer telephony integration, thereby enabling completion of a call.

On the other hand, Emery et al, from the same field of endeavor, discloses a personal communication service system that can integrate a customer's existing wireline-based Centrex or PBX services with a wireless version of those services. PCS will allow four digit dialing of the personal Centrex or PBX number, and it will recognize when the personal user is located within a unique wireless environment based upon registration information sent to it by the wireless Centrex/PBX provider for delivery of calls (col. 8, lines 19-62; col. 10, lines 22-67; col. 11, lines 48- col. 12, line 18). Furthermore, the messages transmitted between the SSP's and the ISCP's are all formatted in accord with the transaction capabilities application protocol. The transaction capabilities protocol provides standardized formats for various query and response messages. Each query and response includes data fields for a variety of different pieces of information relating a call. The transaction capabilities protocol specifies a number of additional message formats, and formats for "invoke" responses for instructing the SSP to play an announcement or to play an announcement and collects digits (col. 13, lines 31-67; col. 14, lines 10-64; col. 16, lines 2-28; col. 16, line 60- col. 17, line 18).

Gillespie also discloses a method for routing a call incoming to a Private Branch Exchange network telephone number from outside of the PBX network based on a PBX

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subscriber's location including routing the call to a wireline switch, which detects predetermined PBX triggers. Furthermore, the call is routed from the wireline switch to a PBX switch in the PBX network for delivery to the single PBX number (col. 2, lines 11-65; col. 4, line 8- col. 5, line 50; col. 7, line 12- col. 8, line 57; col. 12, lines 1-42). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of Gillespie to the modified system of Emery and Bilgic in order to provide a system for providing an interface between the wireline and wireless communication networks utilizing private branch exchange lines.

Regarding claim 16, Bilgic et al discloses a method for handling call requests (fig. 1), wherein said act of determining comprises determining whether an appropriate signaling protocol is available for enabling said private branch exchange to communicate with at least one of a public switched telephone network and an audio switch associated with said wireless communications device (col. 5, line 29- col. 6, line 40; col. 13, lines 17-26; col. 12, lines 28-56; col. 16, lines 5-41).

Regarding claim 17, Bilgic et al discloses a method for handling call requests (fig. 1), wherein said act of determining whether an appropriate signaling protocol is available comprises determining whether a Q signal sequence is available for enabling completion of said call (col. 7, lines 47-62; col. 12, lines 20-56).

Regarding claims 18-28, Bilgic et al as applied to claim 15 above differs from claims 18-28 in the present invention, in that Bilgic fails to disclose the steps of instructing a private branch exchange to communicate with a public switched telephone network; instructing said private branch exchange to communicate with said wireless communications device; instructing said



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private branch exchange to communicate with said wireless communications device via a two-way radio console and said audio switch.

However, Emery et al discloses a personal communication service system that can integrate a customer's existing wireline-based Centrex or PBX services with a wireless version of those services. PCS will allow four digit dialing of the personal Centrex or PBX number, and it will recognize when the personal user is located within a unique wireless environment based upon registration information sent to it by the wireless Centrex/PBX provider for delivery of calls (col. 8, lines 19-62; col. 10, lines 22-67; col. 11, lines 48- col. 12, line 18). Furthermore, the messages transmitted between the SSP's and the ISCP's are all formatted in accord with the transaction capabilities application protocol. The transaction capabilities protocol provides standardized formats for various query and response messages. Each query and response includes data fields for a variety of different pieces of information relating a call. The transaction capabilities protocol specifies a number of additional message formats, and formats for "invoke" responses for instructing the SSP to play an announcement or to play an announcement and collects digits (col. 13, lines 31-67; col. 14, lines 10-64; col. 16, lines 2-28; col. 16, line 60- col. 17, line 18).

Gillespie also discloses a method for routing a call incoming to a Private Branch Exchange network telephone number from outside of the PBX network based on a PBX subscriber's location including routing the call to a wireline switch, which detects predetermined PBX triggers. Furthermore, the call is routed from the wireline switch to a PBX switch in the PBX network for delivery to the single PBX number (col. 2, lines 11-65; col. 4, line 8- col. 5, line 50; col. 7, line 12- col. 8, line 57; col. 12, lines 1-42). Therefore, it would have been obvious

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to one of ordinary skill in the art at the time the invention was made to apply the technique of Gillespie to the modified system of Emery and Bilgic in order to provide a system for providing an interface between the wireline and wireless communication networks utilizing private branch exchange lines.

Regarding claims 29-30, 36-37, Bilgic et al discloses a system for handling call requests (fig. 1), comprising: a private branch exchange (105 of fig. 1) for enabling communication between a wireless communication network (101 of fig. 1) and a public switched telephone network (125 of fig. 1; col. 4, lines 30-58; col. 5, lines 27-59); and a controller (112 of fig. 1) having computer telephony integration technology coupled to said wireless communication network and said private branch exchange (col. 4, lines 38-54; col. 6, lines 15-63; col. 10, lines 18-42 ; col. 12, lines 20-56; col. 17, lines 24-63).

However, Bilgic et al does not specifically disclose the step of instructing a private branch exchange with regard to a communication between a wireless communication network and a public switched telephone network.

On the other hand, Emery et al, from the same field of endeavor, discloses a personal communication service system that can integrate a customer's existing wireline-based Centrex or PBX services with a wireless version of those services. PCS will allow four digit dialing of the personal Centrex or PBX number, and it will recognize when the personal user is located within a unique wireless environment based upon registration information sent to it by the wireless Centrex/PBX provider for delivery of calls (col. 8, lines 19-62; col. 10, lines 22-67; col. 11, lines 48- col. 12, line 18). Furthermore, the messages transmitted between the SSP's and the ISCP's are all formatted in accord with the transaction capabilities application protocol. The transaction

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capabilities protocol provides standardized formats for various query and response messages. Each query and response includes data fields for a variety of different pieces of information relating a call. The transaction capabilities protocol specifies a number of additional message formats, and formats for "invoke" responses for instructing the SSP to play an announcement or to play an announcement and collects digits (col. 13, lines 31-67; col. 14, lines 10-64; col. 16, lines 2-28; col. 16, line 60- col. 17, line 18).

Gillespie also discloses a method for routing a call incoming to a Private Branch Exchange network telephone number from outside of the PBX network based on a PBX subscriber's location including routing the call to a wireline switch, which detects predetermined PBX triggers. Furthermore, the call is routed from the wireline switch to a PBX switch in the PBX network for delivery to the single PBX number (col. 2, lines 11-65; col. 4, line 8- col. 5, line 50; col. 7, line 12- col. 8, line 57; col. 12, lines 1-42). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of Gillespie to the modified system of Emery and Bilgic in order to provide a system for providing an interface between the wireline and wireless communication networks utilizing private branch exchange lines.

Regarding claim 31, Bilgic et al as modified discloses a system for handling call requests (fig. 1), wherein said wireless communication network comprises an audio switch coupled to said private branch exchange and also coupled to said controller (112 of fig. 1) for enabling communication between said wireless communication network and said public switched telephone network (col. 5, line 26- col. 6, line 30; col. 10, lines 18-42; col. 12, lines 20-56; col. 17, lines 24-63).

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Regarding claim 32, Bilgic et al as modified discloses a system for handling call requests (fig. 1), wherein said wireless communication network comprises a two-way radio console coupled to said audio switch and also coupled to said controller (112 of fig. 1) for enabling communication between said wireless communication system and said public switched telephone network (col. 5, line 26- col. 6, line 30; col. 10, lines 18-42; col. 12, lines 20-56; col. 17, lines 24-63).

Regarding claim 33, Bilgic et al as modified discloses a system for handling call requests (fig. 1), wherein said wireless communication network comprises a plurality of wireless communication devices (106 of fig. 1), each of said devices being capable of communicating with said two-way radio console via a wireless link (col. 14, lines 16- 36; col. 18, lines 28- 51; col. 22, lines 14- 49).

Regarding claim 34, Bilgic et al as modified discloses a system for handling call requests (fig. 1), wherein said plurality of wireless communication devices comprise a plurality of wireless transceivers (106 of fig. 1; col. 14, lines 16- 36; col. 18, lines 28- 51; col. 22, lines 14- 49).

Regarding claim 35, Bilgic et al as modified discloses a system for handling call requests (fig. 1), wherein said controller is an adjunct controller (112 of fig. 1; col. 4, lines 38-58; col. 16, lines 28-50; col. 17, lines 24-49).

Regarding claim 38, Bilgic et al as modified discloses a system for handling call requests (fig. 1), wherein said controller (112 of fig. 1) is configured to determine whether an appropriate signaling protocol is available for enabling said private branch exchange to communicate with at least one of a public switched telephone network and an audio switch associated with said

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wireless communications device (col. 5, line 29- col. 6, line 40; col. 13, lines 17-26; col. 12, lines 28-56; col. 16, lines 5-41).

Regarding claim 39, Bilgic et al as modified discloses a system for handling call requests (fig. 1), wherein said controller is configured to determine whether a Q signal sequence is available for enabling completion of said call (col. 7, lines 47-62; col. 12, lines 20-56; col. 16, lines 5-13).

Regarding claims 40-47, Bilgic et al as applied to claim 29 above differs from claims 40-47 in the present invention, in that Bilgic fails to disclose the steps of instructing a private branch exchange to communicate with a wireless communication device of a wireless communication network; instructing a private branch exchange to communicate status of a call to either a central office or a wireless communication device of a wireless communication network; instructing a Private branch exchange to communicate a busy signal to either a central office or a wireless communication device of a wireless communication network in response to a call request when an intended receiving device of said call is not available to receive said call.

However, Emery et al discloses a personal communication service system that can integrate a customer's existing wireline-based Centrex or PBX services with a wireless version of those services. PCS will allow four digit dialing of the personal Centrex or PBX number, and it will recognize when the personal user is located within a unique wireless environment based upon registration information sent to it by the wireless Centrex/PBX provider for delivery of calls (col. 8, lines 19-62; col. 10, lines 22-67; col. 11, lines 48- col. 12, line 18). Furthermore, the messages transmitted between the SSP's and the ISCP's are all formatted in accord with the transaction capabilities application protocol. The transaction capabilities protocol provides

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standardized formats for various query and response messages. Each query and response includes data fields for a variety of different pieces of information relating a call. The transaction capabilities protocol specifies a number of additional message formats, and formats for “invoke” responses for instructing the SSP to play an announcement or to play an announcement and collects digits (col. 13, lines 31-67; col. 14, lines 10-64; col. 16, lines 2-28; col. 16, line 60- col. 17, line 18).

Gillespie also discloses a method for routing a call incoming to a Private Branch Exchange network telephone number from outside of the PBX network based on a PBX subscriber's location including routing the call to a wireline switch, which detects predetermined PBX triggers. Furthermore, the call is routed from the wireline switch to a PBX switch in the PBX network for delivery to the single PBX number (col. 2, lines 11-65; col. 4, line 8- col. 5, line 50; col. 7, line 12- col. 8, line 57; col. 12, lines 1-42). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of Gillespie to the modified system of Emery and Bilgic in order to provide a system for providing an interface between the wireline and wireless communication networks utilizing private branch exchange lines.

### *Conclusion*

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Sladek et al US Patent No 6622016 B1 discloses a method and system for controlled provisioning of a desired set of service logic for a subscriber or group of subscribers.

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Glaser et al US Patent No 5875242 discloses a telecommunications system installation and management device and method for managing, controlling, and updating and monitoring telecommunications device.

Curry et al US Patent No 6359880 B1 discloses a localized wireless gateway system that provides wireless telephone communication, and for at least interexchange communication, provides voice telephone access to a public packet data network, such as the Internet.

Akhavan US Patent No 5920815 discloses a personal communication system, which is operated using a personal phone number associated with each portable subscriber station within a system.

Kao US Patent No 6075985 discloses a fixed wireless access system which includes a base station for bi-directional communication with a switching center, a private branch exchange for bi-directional communication with a plurality of user stations, and a wireless trunk interface.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marceau Milord whose telephone number is 703-306-3023. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian C. Chin can be reached on 703-308-6739. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

  
MARCEAU MILORD

Marceau Milord

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